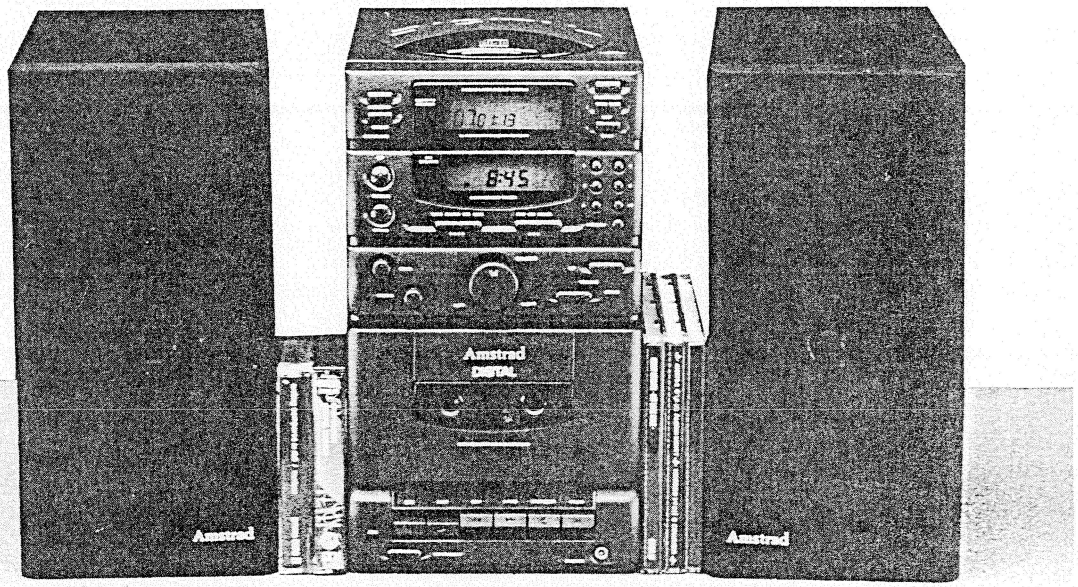
Amstrad



MICRO1000

MINIATURE REMOTE CONTROL AUDIO SYSTEM

SERVICE MANUAL

MICRO 1000

ALIGNMENT INSTRUCTIONS

TEST EQUIPMENT

1. AM SINGNAL GENERATOR WITH TEST LOOP.
2. FM SINGNAL GENERATOR.
3. AM/FM-IF SIGNAL GENERATOR WITH 450KHz AND 10.7MHz MARKER.
4. OSCILLOSCOPE WITH A WIDE BAND AMPLIFIER OF APPROXIMATELY 100KHz.
5. V.T.V.M.
6. POWER SUPPLY.

MW ALIGNMENT

1. TURN ON AM SIGNAL GENERATOR, IF GENERATOR, VTVM, OSCILLOSCOPE AND POWER SUPPLY.
2. USING THE TEST LOOP ACROSS THE OUTPUT OF MW SIGNAL GENERATOR, THE RADIO WILL RECEIVE THE GENERATED SIGNAL BY INDUCTION.
3. CONNECT THE VTVM, OSCILLOSCOPE AND 4 OHM DUMMY LOAD TO THE SPEAKER JACK.
4. SET THE BAND SWITCH TO MW POSITION IN SEQUENCE.
5. SET THE VOLUME CONTROL TO MAX. POSITION (EQUALIZER VOLUME CONTROLS AT MECHANICAL CENTER).
6. SET SINGNAL GENERATOR FREQUENCY AS LISTED IN MW ALIGNMENT CHART AND MAINTAIN A SUFFICIENT OUTPUT LEVEL TO PROVIDE AN OBVIOUS INDICATION.
7. PROCEED AS LISTED IN MW ALIGNMENT CHART.

FM-IF ALIGNMENT

1. SET THE SELECTOR SWITCH TO FM POSITION.
2. GROUND TP2.
3. CONNECT THE IC (IC101) PIN 2 TO THE '+VE' OUTPUT OF FM-IF SIGNAL GENERATOR AND '-VE' TO TP2.
4. CONNECT '+VE' INPUT OF SIGNAL GENERATOR TO TP.5 AND THE '-VE' TO AUDIO GROUNDING POINT.

FM-RF ALIGNMENT

1. TURN ON FM SIGNAL GENERATOR, VTVM, OSCILLOSCOPE AND POWER SUPPLY.
2. INPUT THE SIGNAL TO TP1 AND 2.
3. CONNECT THE VTVM, OSCILLOSCOPE AND 4 OHM DUMMY LOAD TO THE SPEAKER JACK.
4. SET THE VOLUME CONTROL TO MAX. POSITION. (EQUALIZER VOLUME CONTROLS AT MECHANICAL CENTER).
5. SET THE SIGNAL FREQUENCY AS LISTED IN FM ALIGNMENT CHART AND MAINTAIN A SUFFICIENT OUTPUT LEVEL TO PROVIDE AN OBVIOUS READING.

ALIGNMENT INSTRUCTIONS

MODEL NO. : MICRO 1000

BAND	STEP	SIGNALE GENERATOR FREQUENCY	RADIO SETTING	ADJUSTMENT	REMARKS
IF	1	450 KHz		T102, T104	ADJUST FOR BEST IF WAVE FORM (AT DETEDTOR OUTPUT)
MW	1	531 KHz	PRESENT 1 (531 KHz)	L105	VOLTAGE METER CONNECTED TO TP-3 AND GROUND ADJUST TO 1.1V DC (+ – 0.15V)
	2	603 KHz	PRESENT 2 (603 KHz)	L104	ADJUST FOR MAX. INDICATION
	3	1404 KHz	PRESENT 4 (1404 KHz)	CT102	ADJUST FOR MAX. INDICATION
	4	"PREPEAT STEP 2 AND 3 AS REQUIRED"			
FM-IF	1	10.7 MHz		T101, T103	ADJUST FOR BEST WAVE FORM & S CURVE (FIG. 1)
FM-RF	1	87.5 MHz	PRESENT 5 (87.5 MHz)	L103	VOLTAGE METER CONNECTED TO TP-3 AND GROUND ADJUST TO 2.4V DC (+ – 0.2V)
	2	90 MHz	PRESENT 2 (90 MHz)	L102	ADJUST FOR MAX. INDICATION
	3	106 MHz	PRESENT 4 (106 MHz)	CT101	ADJUST FOR MAX. INDICATION
	4	"REPEAT STEPS 2 AND AS REQUIRED"			

S CURVE

FIG. 1

FM STEREO					
STEP	*ALIGNMENT ITEM*	*FEED SIGNAL*	*O/P INDICATION*	ADJUST	REMARK
1	STEREO PILOT FREQUENCY	98 MHz STEREO SIGNAL (L–R=45%) 1000Hz (L+R=45%) PILOT SIGNAL 10% MOD. AT ANTENNA TERMINAL	FREQUENCY COUNTER AT IC (IC–103) TP6 (PIN 6) AND CONNECTED 220K TO GROUND	VR101	38KHz

ALIGNMENT PROCEDURE

CD PCB

PLEASE PAY ATTENTION ON THE FOLLOWING INFORMATION BEFORE ADJUSTING THE CD PLAYER.
THE PICK-UP IS ASSEMBLED AND PRECISELY ADJUSTED USING A SOPHISTICATED MANUFACTURING PROCESS IN THE FACTORY. KEEP THE UNIT PROTECTED FROM VIBRATION AND IMPACT. DO NOT DISASSEMBLE OR ATTEMPT TO RE-ADJUST IT. REPLACE THE PICK-UP IF THE LASER DIODE OR PHOTO DIODE IS DAMAGE.

EQUIPMENT REQUIRE

1. FREQUENCY COUNTER
2. X10 TEST PROBE
3. SEVERO ANALYZER - ONO SOKKI, MODEL : SR-200
4. 40 MHz OSCILLOSCOPE
5. 9V 1A POWER SUPPLY
6. DIGITAL VOLT-METER
7. SHORTING JUMPER
8. TEST DISC - SONY YEDS 18/EIAJ CD-1

SERVO ANALYZER SETTING

AVERAGE BUTTON	:	TO NO LED 'NO' MODE
LOOP BUTTON	:	C > O
MODE BUTTON	:	Y/G (NO LED 'NO')
CONDITION MEMORY BUTTON	:	NO LED 'NO'
FREQUENCY KNOB	:	ADJUST FOR 1 KHz
GENERATOR OUTPUT	:	100mV = -20dB (RELEASE GAIN BUTTON AND ADJUST FOR -20dB)
PHASE	:	ADJUST FOR 100 DEGREE

PRESS THE START BUTTON

RF PLL FREQUENCY ALIGNMENT

1. CONNECT THE TEST POINT TP6 'ASY' (PIN 7 OF IC-1) TO GROUND.
2. CONNECT THE FREQUENCY COUNTER TO TP12 TEST TERMINAL 'PLCK' (PIN 70 OF IC-3) THROUGH THE X10 PROBE.
3. OPEN THE DOOR.
4. SWITCH 'ON' THE POWER.
5. ADJUST THE SEMI-FIXED RESISTOR SFR5 FOR 4.31 MHz INDICATION ON THE FREQUENCY COUNTER.
6. REMOVE THE SHORTING JUMPER.

LASER SAFETY

This product employs a laser. Only qualified service personnel may remove the cover or attempt to service this product. Failure to observe this notice may result in possible eye injury.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS TO PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

This product bears the following warning label on the rear panel:

CLASS 1
LASER PRODUCT

DANGER: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.

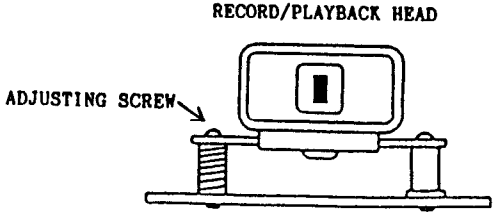
CAUTION: HAZARDOUS LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED.

ATTENTION: RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SÉCURITÉ ANNULÉ.

MODEL NO. : MICRO 1000

CASSETTE ADJUSTMENT AND CHECKING PROCEDURE

STEP	ITEM	INPUT	OUTPUT L ch R ch	FUNCTION SELECTOR	ALIGNMENT PART	ADJUSTING & SPECIFICATION	REMARKS
1.	HEAD AZIMUTH	TEST TAPE MTT-114N (10 KHz)	HEADPHONE	TAPE	HEAD ADJUSTABLE SCREW (FIG. 2)	ADJUST THE P/B HEAD UNTIL MAXIUM OUTPUT. R & L CHANNEL SHOULD BE LESS THAN 2 dB	
2.	POWER OUTPUT	TEST MTT-112BN	SPEAKER	TAPE	SET VR UNTIL 10% DISTORTION IS INDICATED ON DISTORTION METER	SPEC. 5.0W LIMITED	SPEAKER LOAD : 4 OHM
3.	FREQUENCY RESPONSE	TEST TAPE MTT-257C	HEADPHONE	TAPE	SET VR UNTIL REF. OUTPUT (0dB) AT 1 KHz	SPEC. LOW FREQ. 125 Hz +-6 HIGH FREQ. 8 KHz +-6	
4.	CHANNEL SEPARATION	TEST TAPE MTT-141	HEADPHONE	TAPE	SET VR UNTIL REF. OUTPUT (0dB) AT R ch. OR L ch.	MEASURE THE RATIO BETWEEN RECORD SIGNAL AND LEAK SIGNAL SPEC. 30 dB	TURN TAPE MTT-141 TRACK 1 - L ch 1 KHz SIGNAL RECORDED TRACK 2 - R ch NO SIGNAL RECORDED TRACK 3 - R ch 1 KHz SIGNAL RECORDED TRACK 4 - L ch NO SIGNAL RECORDED
5.	BIAS FREQUENCY			TAPE (AT REC. MODE)	T301	ADJUST ABOUT 70 KHz (+-2 KHz) FOR BEAT 1 68 KHz (+-2 KHz) FOR BEAT 2 ACCORDING TO THE BALANCE OF REQUIRED BIAS CURRENT	FREQUENCY COUNTER TO C327 (TP. 7) & GROUND



RECORD/PLAYBACK HEAD ADJUSTMENT
FIG. 2

FOCUS BIAS ALIGNMENT (RF GAIN)

1. CONNECT THE INPUT TERMINAL OF THE OSCILLOSCOPE THROUGH THE X10 TEST PROBE TO THE TEST POINT TP5 (IC-1).
2. SET THE TIME BASE OF THE OSCILLOSCOPE TO 0.5uS/DIV. VERTICAL GAIN TO 20mV/DIV.
3. PLACE THE TEST DISC INTO THE DISC COMPARTMENT AND CLOSE THE DOOR.
4. SLIDE THE POWER SWITCH TO THE 'ON' POSITION.
5. PRESS THE 'PLAY'BUTTON.
6. ADJUST THE SEMI-FIXED RESISTOR SFR2 FOR MAX. OUTPUT.

E-F BALANCE ALIGNMENT

1. CONNECT THE INPUT TERMINAL OF THE OSCILLOSCOPE THROUGH THE X10 TEST PROBE TO THE TEST POINT TP8.
2. SET THE TIME BASE OF THE OSCILLOSCOPE TO 0.1mS/DIV, VERTICAL GAIN TO 20mV/DIV.
3. PLACE THE TEST DISC INTO THE DISC COMPARTMENT AND CLOSE THE DOOR.
4. SLIDE THE POWER SWITCH TO THE 'ON' POSITION.
5. PRESS THE 'PLAY' BUTTON.
6. PRESS THE F. SKIP OR B. SKIP BUTTON CONTINUOUSLY.
7. ADJUST THE SEMI-FIXED RESISTOR SFR1 FOR SYMMETRICAL WAVEFORM.

FOCUS GAIN ALIGNMENT

1. DE-SOLDERING THE SHORTING JOINT TP10 AND TP11.
2. CONNECT THE 'Y' TERMINAL OF THE SERVO ANALYZER TO TP10 AND 'OUT' TERMINAL TO TP11.
3. PLACE THE TEST DISC INTO THE DISC COMPARTMENT AND CLOSE THE DOOR.
4. SLIDE THE POWER SWITCH TO THE 'ON' POSITION.
5. PRESS THE 'PLAY' BUTTON.
6. ADJUST SEMI-FIXED RESISTOR SFR3 FOR 0dB.
7. RE-SOLDERING THE SHORTING JOINT TP10 AND TP11.

TRACKING GAIN ALIGNMENT

1. DE-SOLDERING THE SHORTING JOINT TP8 AND TP9.
2. CONNECT THE 'Y' TERMINAL OF THE SERVO ANALYZER TO TP8 AND 'OUT' TERMINAL TO TP9.
3. PLACE THE TEST DISC INTO THE DISC COMPARTMENT AND CLOSE THE DOOR.
4. SLIDE THE POWER SWITCH TO THE 'ON' POSITION.
5. PRESS THE 'PLAY' BUTTON.
6. ADJUST SEMI-FIXED RESISTOR SFR4 FOR 0dB.
7. RE-SOLDERING THE SHORTING JOINT TP8 AND TP9.

LASER SAFETY

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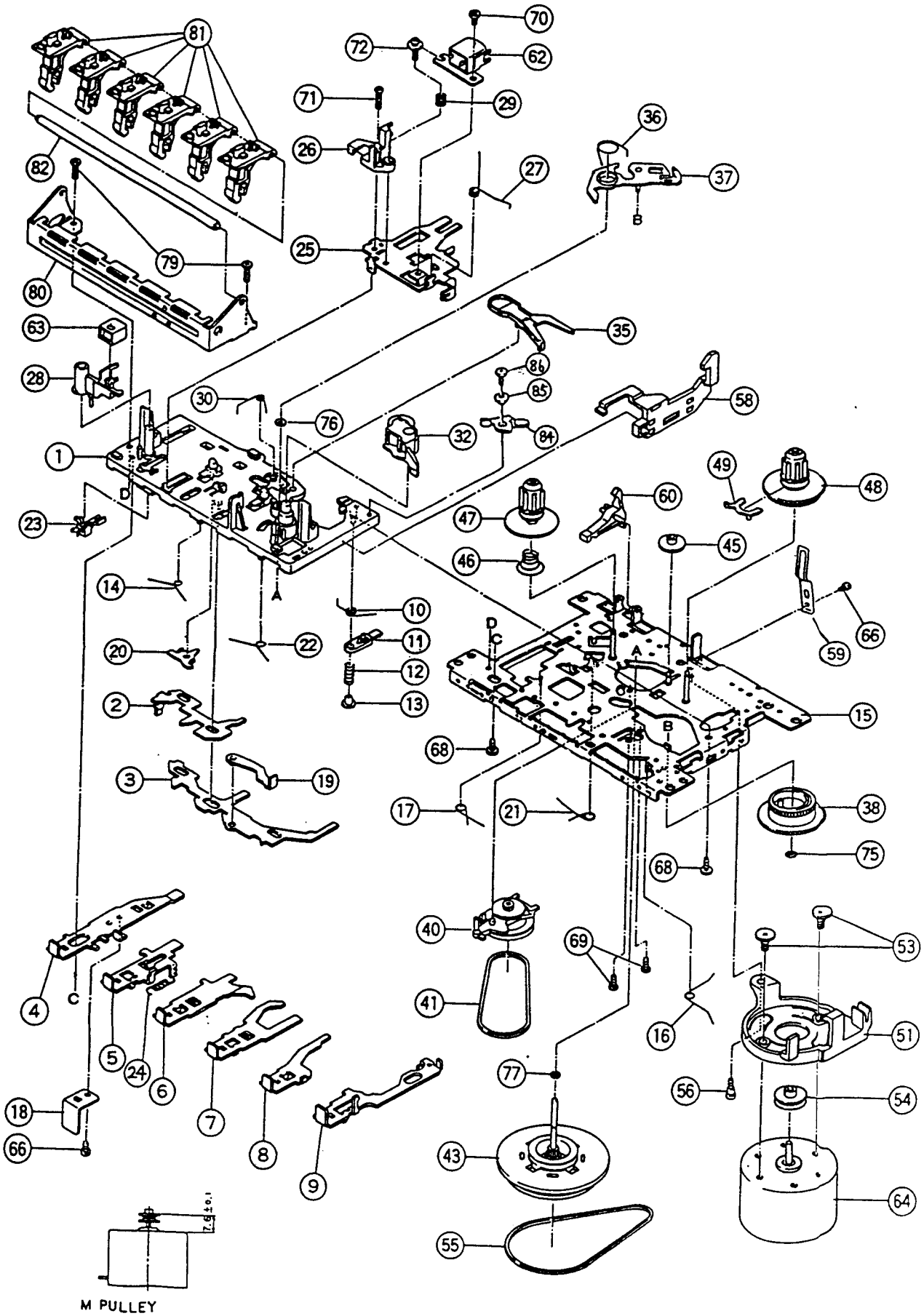
CLASS 1
LASER PRODUCT

DANGER INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED AVOID DIRECT EXPOSURE TO BEAM

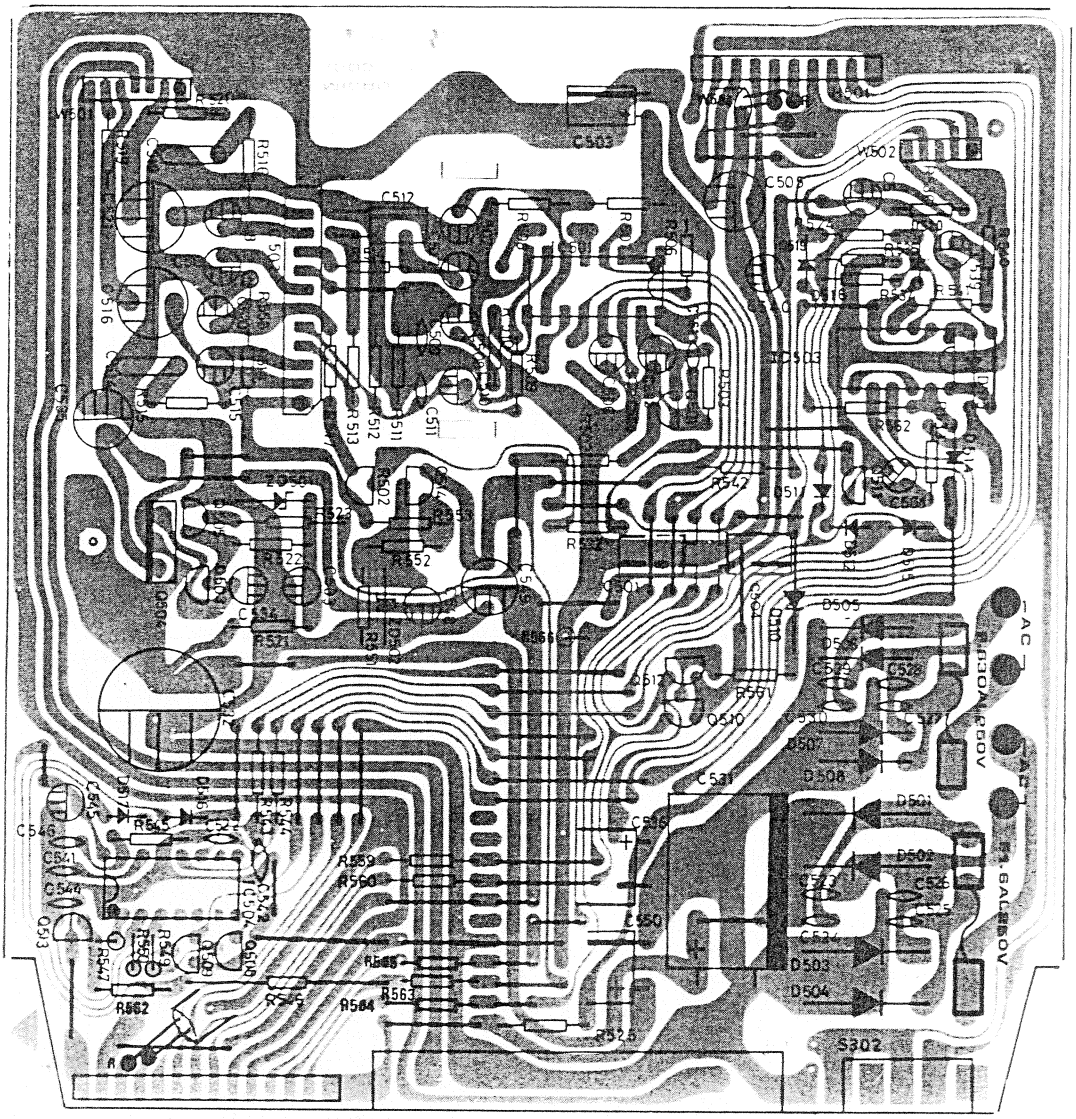
CAUTION HAZARDOUS LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED

ATTENTION RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SECURITE ANNULE

CASSETTE MECHANISM



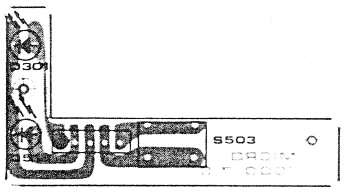
POWER PCB COMPONENT LAYOUT

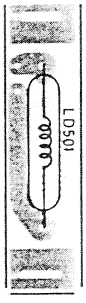


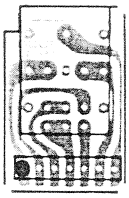
LAMP PCB

LED PCB

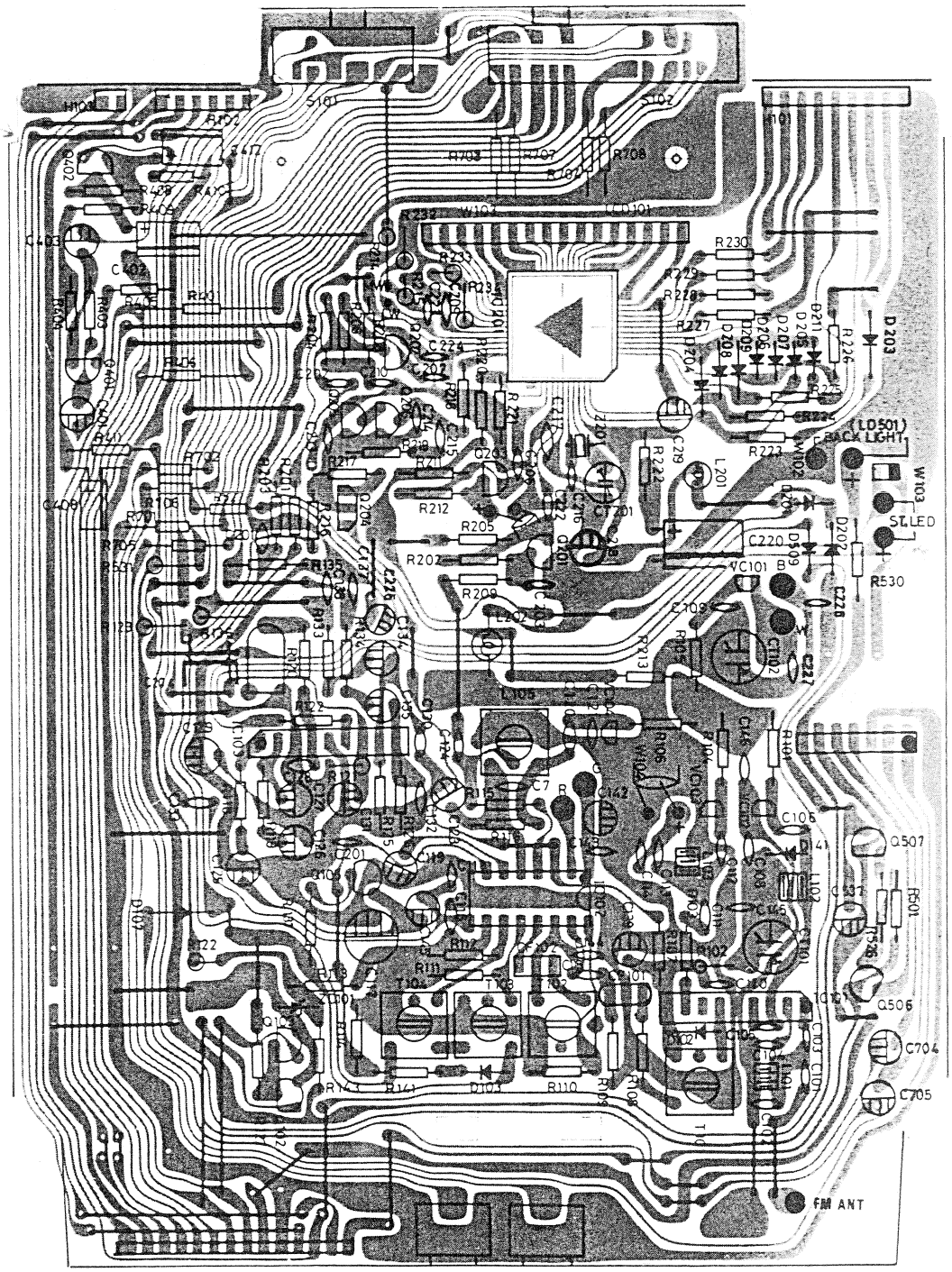
PHONE JACK PCB



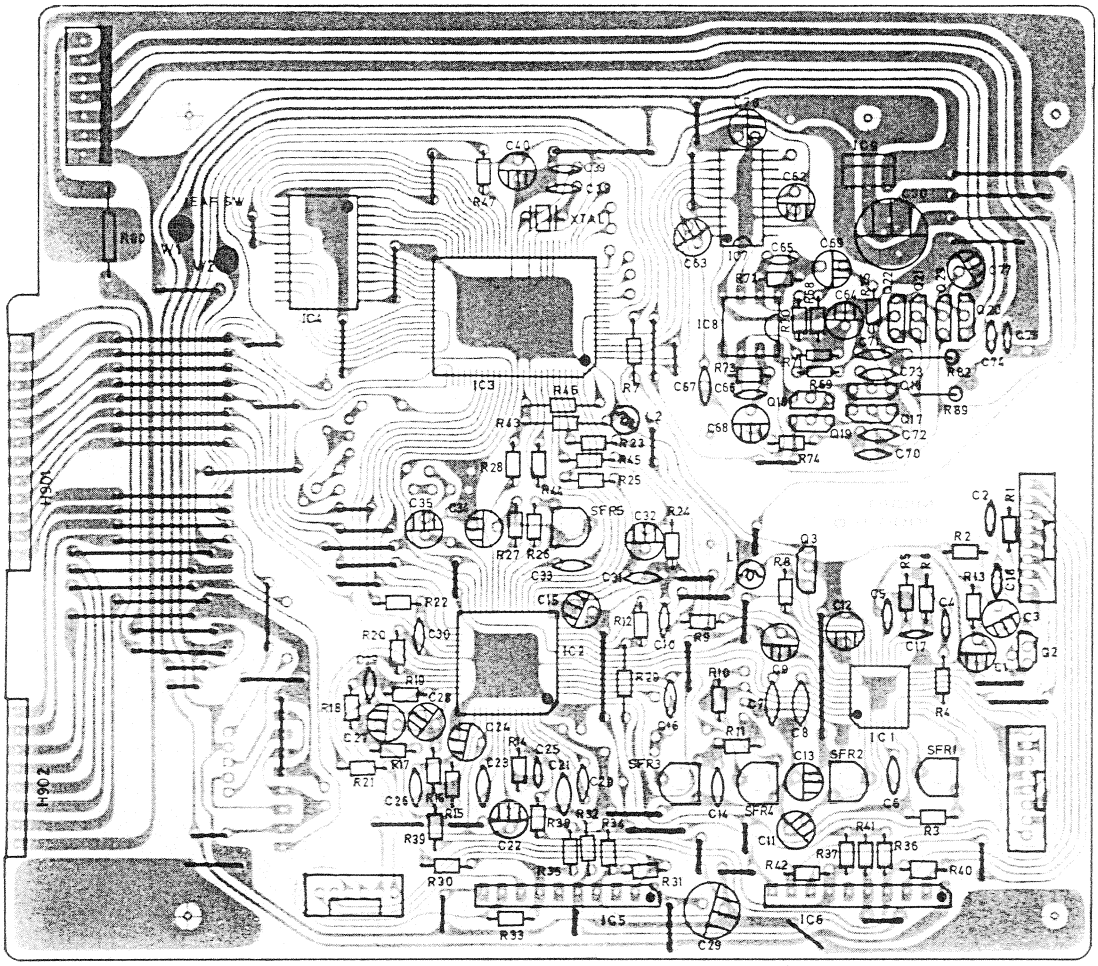




MAIN PCB COMPONENT LAYOUT



CD PCB COMPONENT LAYOUT



LASER SAFETY

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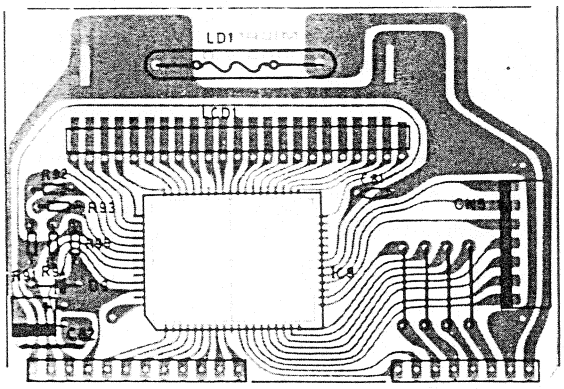
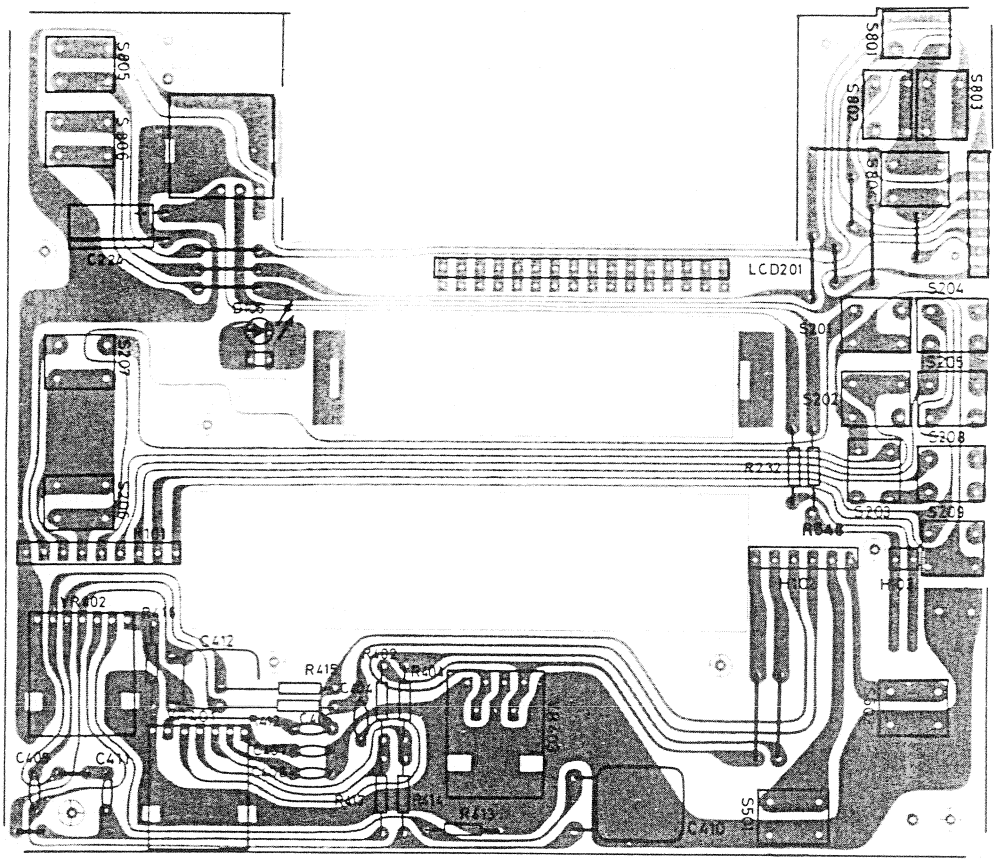
ATTENTION: RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SECURITE ANNULE.

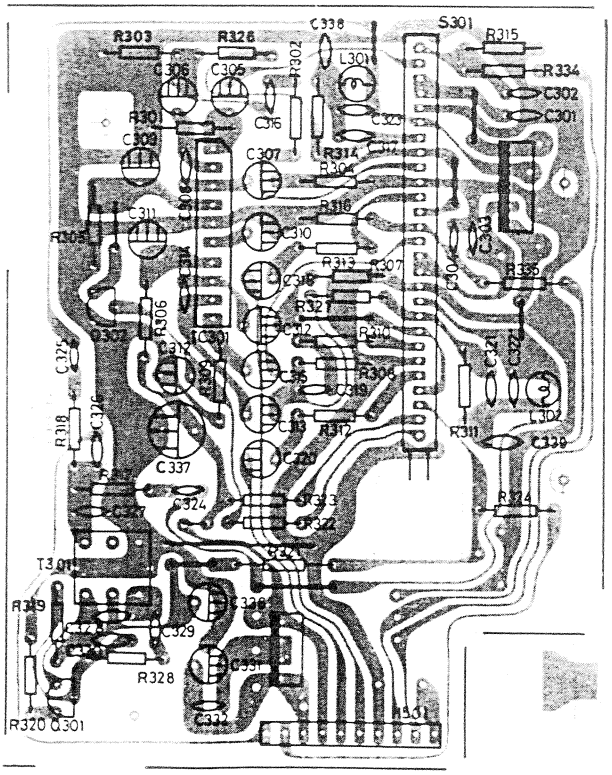
CD DISPLAY PCB



PLL CONTROL PCB COMPONENT LAYOUT



RECORDING PCB COMPONENT LAYOUT



MICRO1000.

REF. NO.	DESCRIPTION.	PT. NO.
	CABINET PARTS LIST	
1	FRONT PANEL A	203637
2	TOP PANEL	203638
3	REAR CABINET A	203652
4	CD DOOR	203639
5	CD DOOR LENS	203642
6	CD DISPLAY LENS	203640
7	PLL DISOLAY LENS	203641
8	FUNCTION KNOB 'A' REPEAT	203643
9	TUNING KNOB	203647
10	FUNCTION KNOB 'B' PLAY	203644
11	MEMORY BUTTON 'B'	203646
12	MEMORY BUTTON 'A'	203645
13	VOLUME KNOB	203651
14	BAND SWITCH KNOB	203648
15	BALANCE KNOB	203650
16	BASS KNOB	203649
17	DISC CLAMP 'B'	203783
18	DISC CLAMP HOLDER	203784
19	MAGNET RING	203653
20	DISC CLAMP 'A'	203785
21	PUSH CATCH 4U44	203786
22	THREAD ASSY EOD-150-01A	203787
23	BAR HOLDER	
24	RUBBER FOOT	203654
25	DAMPER	203658
26	CD DOOR EJECT SPRING	203659
27	CD SUPPORT SPRING FRONT	203656
28	CD SUPPORT SPRNG REAR	203657
29	BRASS STUD 'A'	
30	CHASSIS NUT 3M	
31	PCB MOUNTING BRACKET	
32	CD COVER PLATE	203655
33	HEAT SINK 'B'	
34	CD DISPLAY BRACKET	
35	PLL DISPLAY BRACKET	
36	PLL DISPLAY REFLECTOR BRACKET	
37	CD DISPLAY REFLECTOR PLATE	
38	CARD PAPER	
39	SHIELDING PAPER	
53	FRONT PANEL 'B'	203661
54	CASSETTE DOOR COVER	203663
55	CASSETTE DOOR	203662
56	CASSETTE DOOR LENS	203664
57	CASSETTE FUNCTION PLATE	203788
58	REAR CABINET 'B'	203672
59	STANDBY BUTTON	203671
60	CASSETTE KNOB REC.	203665
61	CASSETTE KNOB PLAY	203666
62	CASSETTE KNOB REW	203668
63	CASSETTE KNOB F.F.	203667
64	CASSETTE KNOB STOP	203669
65	CASSETTE KNOB PAUSE	203670
66	THREAD ASSY EOD-080-11A	203789
67	RUBBER FOOT	203673
68	TRANSFORMER COVER	
69	TRANSFORMER COVER PLATE	
70	HEAT SINK 'A'	
71	PCB MOPUNTING BRACKET 'B'	
72	RECORDING PLATE	203790
73	BRASS STUD 'B'	
74	CASSETTE KEY MOUNTING BRACKET	
75	CHASSIS NUT M3	
76	CASSETTE DOOR SPRING	203660
	IC	
IC1	IC CXA1081Q	203613
IC2	IC CXA1082BQ	203338
IC3	IC CXD1130Q	203614
IC4	IC GM76C28FW CXK5816M	203615
IC5,6	IC BA6294	203617
IC7	IC LC7881M	203616
IC8	IC BA4558 DUAL OP AMP	203341
IC9	IC 7805 REG	190731
IC9 CD DISP	IC CXA1010	203625
IC101	IC TA7358AP RF AMP	203400
IC102	IC TA7757 AM FM IF AMP	203401
IC103	IC TA7343P FM MPX	203580
IC201	IC TC9307-010 DTS	203581
IC301	IC BA3312N PLAY REC AMP	202161
IC501	IC LC7533 ELECT VOL	203603
IC502	IC BA54512 POWER AMP	203602
IC503	IC TC4013BP QUAD FF	203605
IC504	IC TC9149P REMOTE REC	203715
	TRANSISTOR	
Q2,502	TR 8550C	203582
Q3	TR 2SC2458 2SC1815Y	170453
Q16,17,21,22	TR DTC343TS	203618
Q18,23	TR DTA114ES	273263
Q19,20	TR DTC114ES	151102
Q102,103,105 205,206,302 401,402,501 505,507-512	TR 9014C	203408
Q201-203,513	TR 9018F	203716
Q204	TR 2SK118	203583
Q504	TR BD233	203606
Q301,503,514	TR 8050C	203607
Q506	TR 2SA1020 2SB892	194184
	DIODES	
D9,102,103 201-203,206 209,211,509-519	D 1N4148 RECT	270754
D106,301,302	LED RED STEREO STANDBY REC IND.	203600
D501-504	D 1N5401 RECT	809254
D505-508	D 1N4001 RECT	192506
ZD501	DZ 10V 1/2W	160124
ZD502	DZ 6V8 1/2W	253277
VC101,104	D SVC321 VARICAP DIODE	202189
VC102,103	D ISV101 VARICAP DIODE	203418
	COILS	
L1,2	COIL FERRITE CHOKE 47UH	203623
L101,102	COIL FM ANT RF	
L103	COIL FM OSC AWG24	
L104	COIL AM ANT OSC	203590
L105	COIL AM IF OSC 3045 RED	203585
L201	COIL FERRITE CHOKE 100uH	203690
L301,302	COIL FERRITE CHOKE 10UH	203612
T101	COIL FM IF DET 3047 ORANGE	203588
T102,104	COIL AM IF MIXER 3050 YELLOW	203586
T103	COIL FM IF 3041 BLUE	203587
T301	COIL BIAS OSC 2A621E	203610
T501 !	POWER TRANSFORMER EI-57	203634
	VARIABLE RESISTORS	
SFR1,3,4	VRSF 20K OHM B24	203620
SFR2	VRSF 50K OHM B54	203621
SFR5	VRSF 2K OHM B23	203619
VR101	VRSF 10K OHM 8mm	203595
VR401,402	VROT 100KBX2 OHM CENTRE CLICK	203598
VR403	VROT 100KOHM CENTRE CLICK	203599
	MISCELLANEOUS	
CF101	FM CERAMIC FILTER 10.7MS2A RED	203423
CF102	AM CERAMIC FILTER U450B14	203629
CT101,102	TRIMMER 10PF	250500
CT201	TRIMMER 20PF	153309
Z201	CRYSTAL 75KHZ	203591
S101	SWITCH SLIDE SK-43D01 BAND SEL	203592
S102	SWITCH SLIDE SK-44D01 FUNCTION SEL	203593
S201-209,501 502,503,801-806	TACT SWITCH EVQ-PAE-04B	203597
S301	SWITCH PUSH 9P2T PS-92DO	203611
S302	SLIDE SWITCH SK-22F05	203791
	LEAF SWITCH LSA-1119M DOOR SW	203792
	CD MECHANISM KSM-2101BAM	203624
LCD1	LCD DISPLAY HLC8184 012418	203627
LCD101	LCD DISPLAY HLC8049 012418	203601
XTL1	CRYSTAL 16.9344MHZ	203622
LD1,501	LAMP 6V 100mA	203626
HP501	HEADPHONE JACK W/S 2P2T TC38	203628
	REMOTE CONTROL HANDSET	203677
	BATTERY DOOR REMOTE CONTROL	203676
	DECK MECHANISM TN-21ZSC-1140	203793
	MOTOR EG530AD-9B	203631
	R / P HEAD S09	203632
	ERASE HEAD 6PA	203633
	PINCHROLLER ARM ASSY	203798
	RF CLUTCH ASSY	203799
	RF BELT	203800
	MAIN BELT	203801
	EJECT SLIDE LEVER	203802
	AC POWER SOCKET	203635
	AC POWER CORD UK	203636
	AC POWER CORD EURO	203791
	RCA JACK RJ-1003-30B	203594
	AM FRTTITE ROD ANTENNA	203795
	REMOTE SENSOR BOX SBX1610-52	203596
	SPEAKER SOCKET HSP-114V	203608
	SPEAKER BOX ASSY. PAIR	203674
	FUSE F1.6A !	203796
	FUSE 630mA !	203797
	15 WAY INTERCONNECTION CABLE	203678
	USER INSTRUCTIONS	203675

DESCRIPTION	REF. NO.	PT. NO.

Amstrad RESERVES THE RIGHT TO SUPPLY SELECTIVE COMPONENTS

RESISTORS

1/2W RESISTORS

2.2 Ω	R90,525,530
220 Ω	R553

1/4W RESISTOR

33K Ω	R29

1/16W RESISTORS

22 Ω	R2
100 Ω	R1
330 Ω	R74,75
1K Ω	R8,13,22,23,47,69,82,89
1.5K Ω	R68
3.3K Ω	R11,26
4.7K Ω	R10
6.8K Ω	R5
8.2K Ω	R3,18,94
10K Ω	R4,7,28,45
15K Ω	R6,91-93
20K Ω	R25
22K Ω	R17,32,34-37,43,46
33K Ω	R30,31,33,38-42
47K Ω	R95
56K Ω	R70,71
68K Ω	R12
82K Ω	R16
100K Ω	R9,14,15,19,20,44,72,73

180K Ω	R27
510K Ω	R21
1M Ω	R24

1/8W RESISTORS

2.2 Ω	R103,515,516
10 Ω	R320
47 Ω	R115,143,209,542,546,563
68 Ω	R303,308,517
100 Ω	R107,108,213,306,557
120 Ω	R513,514
150 Ω	R123,222,232
220 Ω	R405,410,411,519,520
330 Ω	R102,109,201,531
470 Ω	R321
560 Ω	R324,524,562
820 Ω	R206
1K Ω	R119,122,205,509,510,526
2.2K Ω	R111,208,404,409,413,416,552,561
3.3K Ω	R116,125,126,543,544,549,550
3.9K Ω	R328,532
4.7K Ω	R216,302,310,402,404,521,559,560 703,704
5.6K Ω	R120,203,414,417
6.8K Ω	R217
8.2K Ω	R128,142
10K Ω	R118,127,137,214,223-230,304,307 312,313,315,316502,507 508,523,533,547,562
12K Ω	R220,317,318,401,406,534,541,707 708
15K Ω	R412,415
18K Ω	R135,136,311,314
22K Ω	R319,536
33K Ω	R112,133,134,141,527
39K Ω	R545
47K Ω	R301,309,322,511,512,564,701,702 705,706
68K Ω	R110
100K Ω	R101,104-106,114,130,215,221,232 -234,503,506,535,540,551,565,566 548
150K Ω	R204
180K Ω	R202,212,326,327
220K Ω	R121
270K Ω	R218,334,335
330K Ω	R219
470K Ω	R305,501
1M Ω	R403,408

CAPACITORS

CERAMIC CAPS

2pF NPO	C113
3pF	C17
5pF NPO	C105
8pF NPO	C7
10pF	C114,121,234
12pF	C4,216
15pF	C103
18pF	C124
20pF	C111
27pF	C65,66
30pF	C38,39
33pF	C101
39pF	C102
100pF	C25,26,112,202
120pF	C203
150pF	C106
220pF	C226,308,314
330pF	C213,322,323
500pF	C118,324,325,330
0.001μF	C104,108,145,206,207,209,222,223 301-304,338,339,541,544
0.002μF	C214,509,511
0.0033μF	C326
0.01μF	C110,115,144,201,210
0.02μF	C133,142,215,332,522-530,542
0.04μF	C109,116,146,201
0.1μF	C2,20,23,30,67,72,73,81,217,560 561

MYLAR CAPS

0.001μF	C14,18,33,74,75,128,327,546
0.0022μF	C404,406
0.0033μF	C137,138
0.0047μF	C29
0.0068μF	C70,71
0.01μF	C5-7,10,328,329
0.012μF	C130,132
0.015μF	C405,407,409,411
0.033μF	C8,16,21,31,316,319
0.1μF	C410,412,514,519

POLY CAPS

470pF	C120

ELECTROLYTIC CAPS

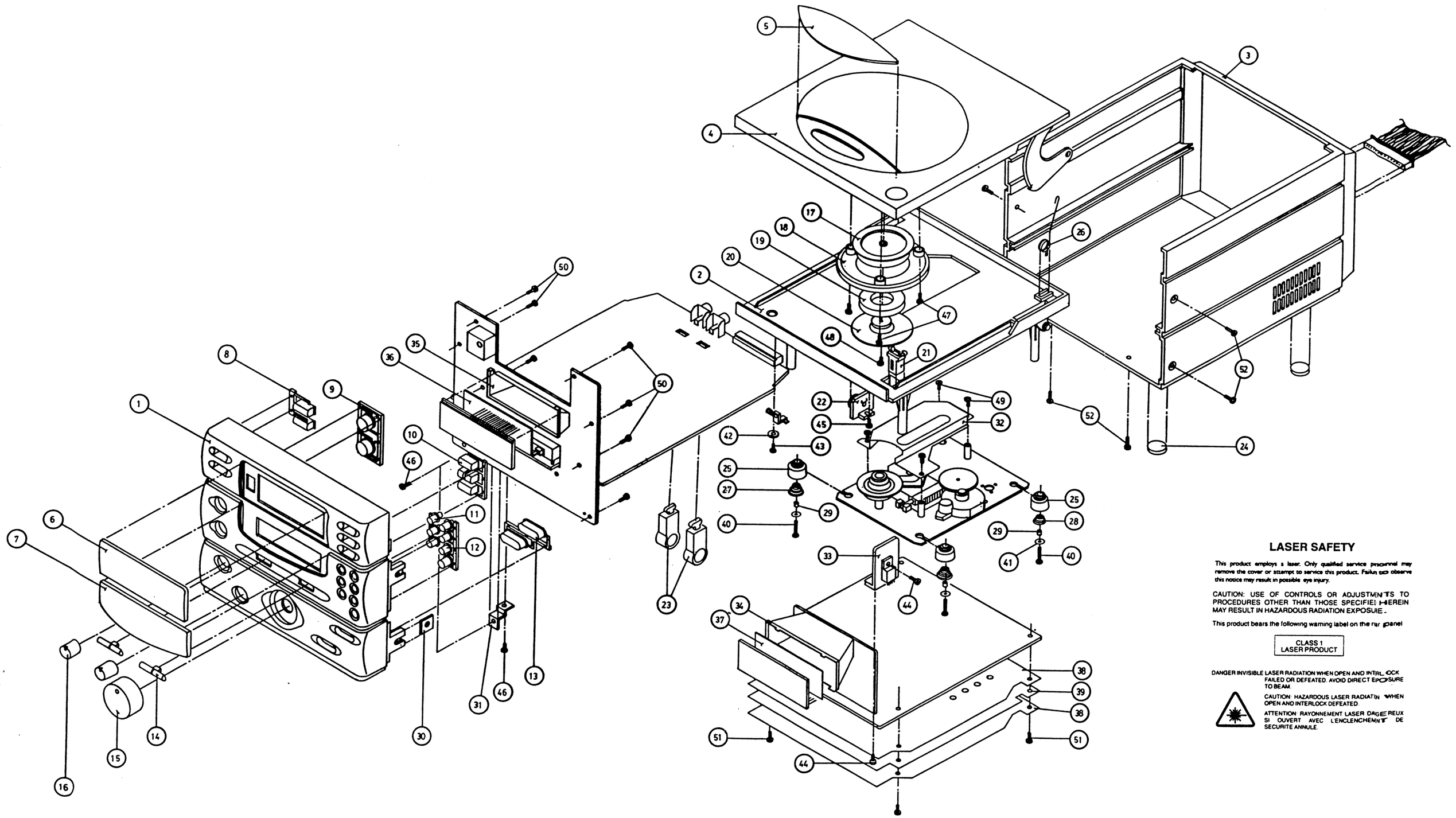
0.47μF	C9,32,219,537,547
1μF	C35,125,127,145,307,312,318,320 333 403,412,501,504,506,520
2.2μF	C82,134,135,502
3.3μF	C77,126,131
4.7μF	C22,68,69,401,402,508,510,539,704 705
10μF	C305,315,503
22μF	C24,27,28,119,136,204,309
33μF	C1,3,34
47μF	C12,62,63,123,139,143,224,225512 517,540 545,561,562
100μF	C11,13,15,40,64,306,310,313,331 408,515,518,533 534,548
220μF	C117,129,218,311,336,337
330μF	C85,513
470μF	C505,535,549
1000μF	C30,220,516,521,532
2200μF	C536,550
2200μF 25V	C531

TECHNICAL SPECIFICATIONS

Compact Disc	3" or 5" compatible, 21 track programming, music search, skip up or down, memory repeat
Radio	Tuning: PLL with 15 presets
	Frequency Range: AM 531 – 1602 kHz
	FM 87.5 – 108 MHz Stereo
Antenna	AM: Built in ferrite bar
	FM: Band line
Cassette Piano type deck	Play/record/pause/stop & eject/fast forward/fast rewind
Speakers	10.5cm 20W MPO, full range, x 2
Connections	3.5mm stereo headphone; speaker socket x 2; aux input, RCA phono x 2, FM ant.
Accessories	Remote control
Power Supply	AC 220 – 240 V 50 Hz
Dimensions	Cassette unit: 150mm(W) x 200mm(D) x 129mm(H)
	CD/Radio unit: 150mm(W) x 200mm(D) x 138mm(H)
	Speaker unit: 129mm(W) x 200mm(D) x 258mm(H)
Weight	4.24 kg including speakers

AMSTRAD PLC
BRENTWOOD HOUSE, 169 KINGS ROAD, BRENTWOOD, ESSEX CM14 4EF.

UNIT A CABINET EXPLODED VIEW



LASER SAFETY

This product employs a laser. Only qualified service personnel may remove the cover or attempt to service this product. Failure to observe this notice may result in possible eye injury.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS TO PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

This product bears the following warning label on the rear panel

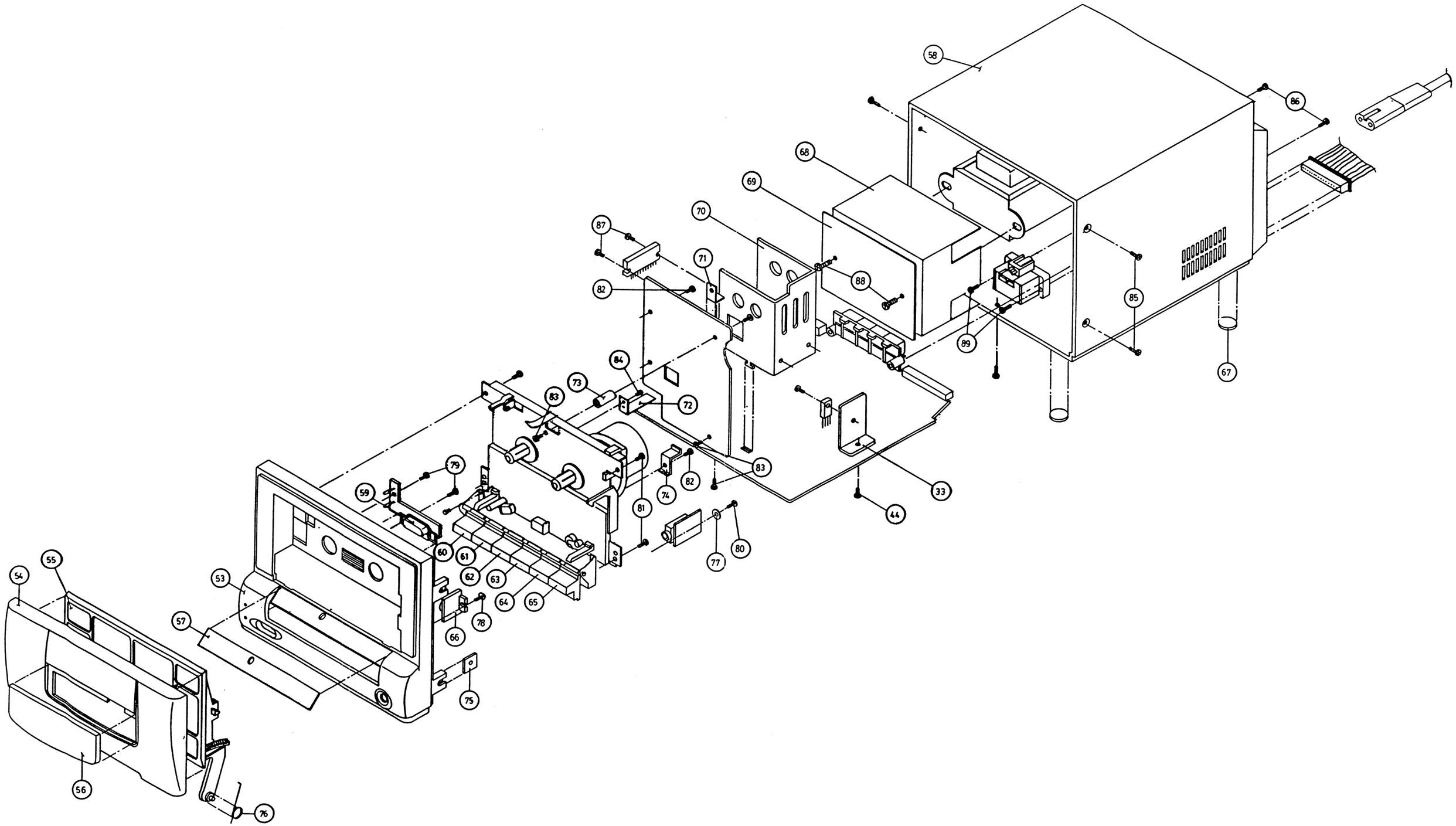
CLASS 1
LASER PRODUCT

DANGER INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.

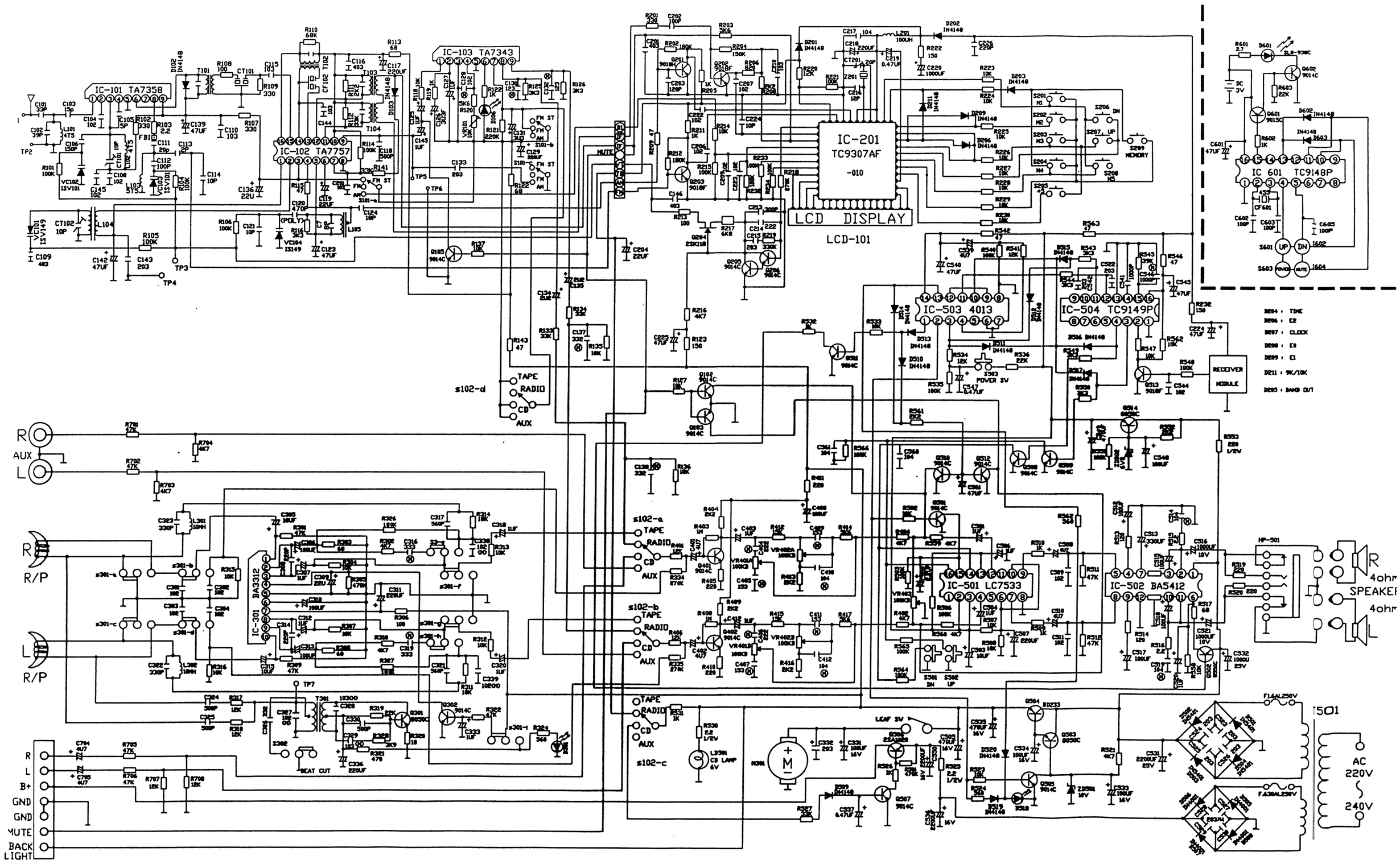
CAUTION: HAZARDOUS LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED.

ATTENTION: RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SECURITE ANNULE.

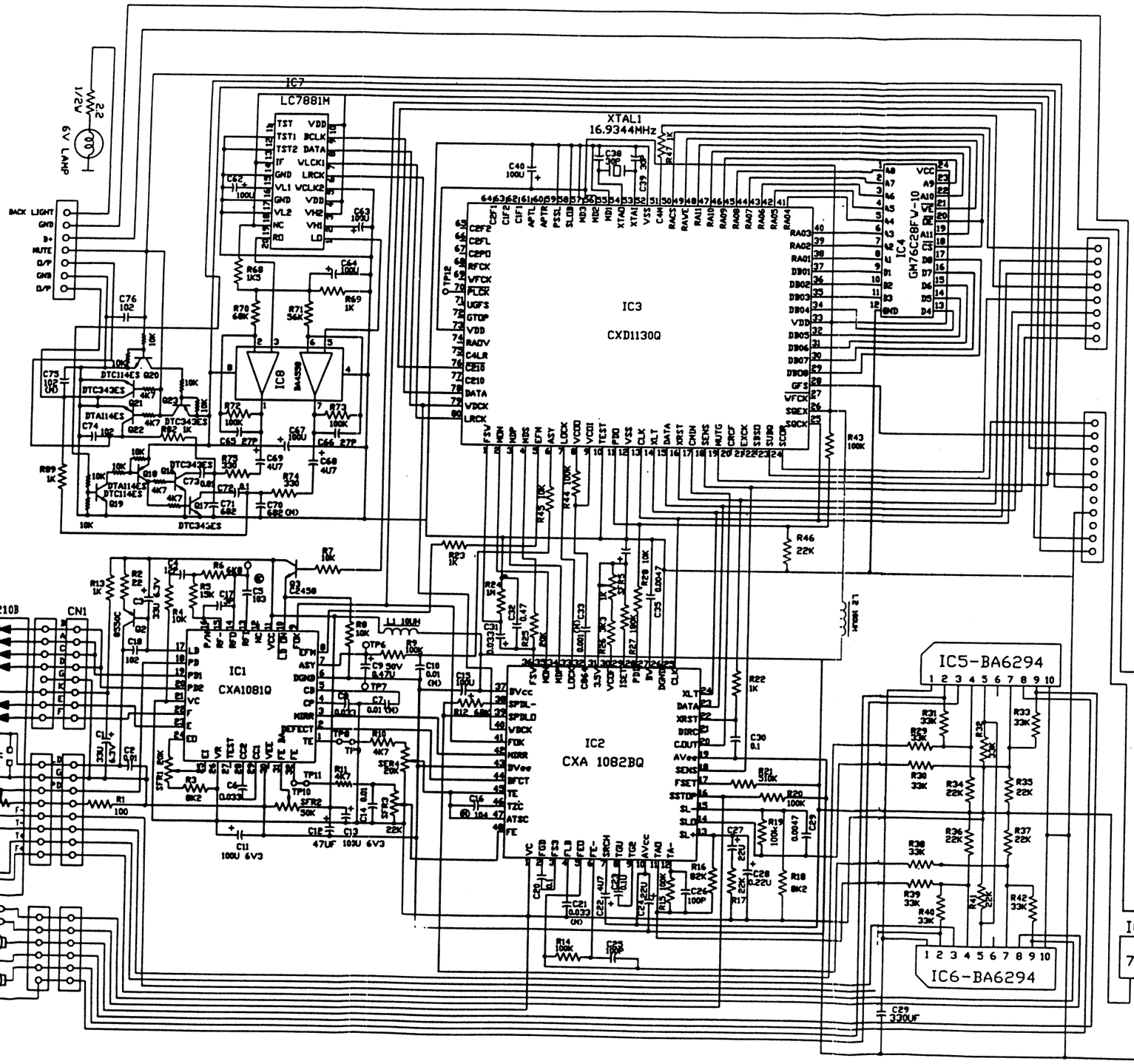
UNIT B CABINET EXPLODED VIEW

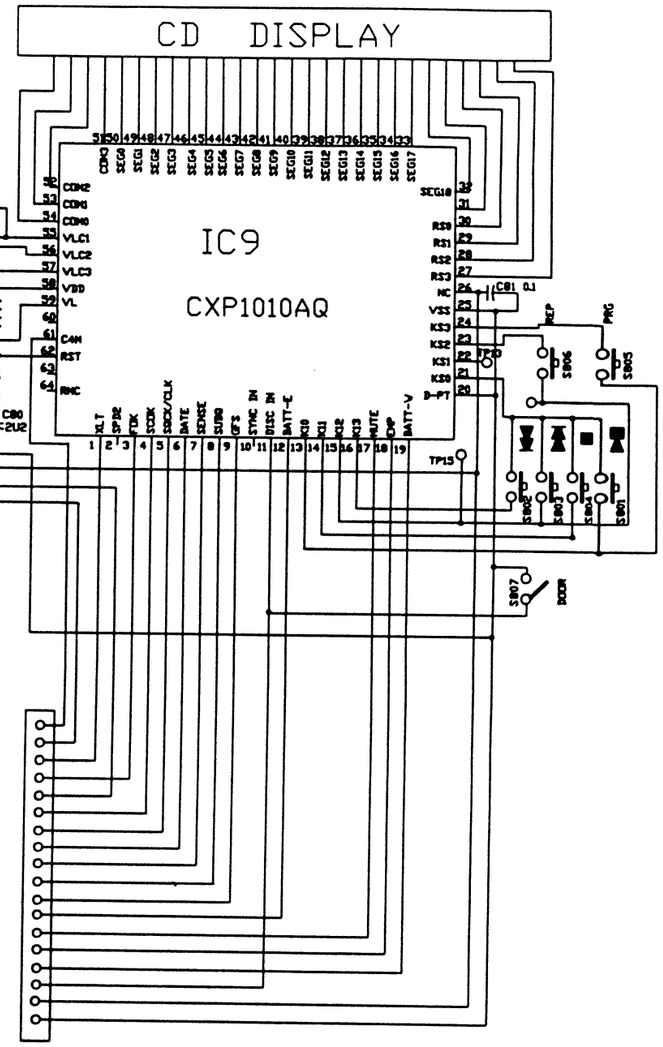


MAIN SCHEMATIC DIAGRAM



CD SCHEMATIC DIAGRAM





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CAUTION HAZARDOUS LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED

ATTENTION RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SECURITE ANNULE